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EXAMINER	
PARK, EDWARD	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/809,464	OKUDA ET AL.	
	Examiner	Art Unit	
	Edward Park	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-25 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-25 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 26 March 2004 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/26/04, 12/5/05, 3/22/06, 4/21/06.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on March 28, 2003. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Drawings

2. The drawings are objected to because of typographical errors: (Figure 1B, numeral 17) "~~alculation~~" should be changed to "calculation"; (Figure 11) "~~combinatio~~" should be changed to "combination". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections - 37 CFR 1.75(a)

3. The following is a quotation of 37 CFR 1.75(a):

> The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

4. **Claims 1, 16** are objected to under 37 CFR 1.75(a), as failing to conform to particularly point out and distinctly claim the subject matter which application regards as his invention or discovery.

Regarding **claims 1, 7, 16, 21**, the phrase, "characteristic amount of defects / the defect of which characteristic amount", is interpreted broadly as being a "characteristic feature". What is the scope of the two phrases? "Characteristic amount" suggests a characteristic number of defects. The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claim 3**, the phrase, "which is positioned with reference to position coordinate data on the defects of the sample", is interpreted broadly. Does the phrase suggest that each defect contains position data or the object under examination contains position coordinate data? The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claim 4**, the phrase, "classification class set", is interpreted broadly as being a "classification class". The claim is unclear due to the undefined term "classification class set". The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claims 5, 10, 14**, the phrase, "correlation among classes", is interpreted broadly as being a "any relationship between classes". What does "correlation" mean technically? Is there some sort of function that determines the correlation? The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claims 6, 11, 15**, the phrase, "the each classification model / class" is not clear grammatically. Also, the phrase, "the model likelihood about the adequacy of the each classification model" is vague and indefinite. What does adequacy mean technically? Is there a certain threshold that needs to be met? The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claim 16**, the phrase, "rule-based classification section" and "learning type classification section", is interpreted broadly as being a "rule-based / learning type classifier". What is the scope of the word "classification section"? It appears that "classification section" is equivalent to "classifier" in this case. The broadest interpretation will be utilized for examination purposes. Correction is required.

Regarding **claims 20, 25**, the phrase, "classification class section", is interpreted broadly as being a "classifier". More explanation is needed on the phrase. Also, the phrase, "for calculating the class likelihood of the individual classification class sections and model likelihood about the adequacy .....", will be interpreted broadly as possible. Again, the phrase "adequacy", is unclear in scope. Is there a certain threshold that determines the reliability of the classifier? The broadest interpretation will be utilized for examination purposes. Correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1, 4, 5, 7, 10, 12, 14, 16, 17, 18, 21, 22, 23** are rejected under 35 U.S.C. 102(b) as being anticipated by Ko et al (IEEE, "Solder Joints Inspection Using a Neural Network and Fuzzy Rule-Based Classification Method").

Regarding **claim 1**, Ko teaches a method for classifying defects, comprising:

obtaining a defect image by taking a picture of a sample ("three-color tiered illumination system ... CCD camera"; Ko: pg. 94, right column, last paragraph);

extracting a characteristic amount of defects from the defect image ("classify solder joints by color patterns obtained from a three-tiered color circular illumination system based upon a

similarity measure between input data and the feature vectors of each class"; Ko: pg. 94, left column, third paragraph);

preparing at least one type of classification model which is a combination of rule-based classification and learning type classification to calculate the likelihood that the extracted defects belong to a classification class by using information on the extracted characteristic amount of the defects ("combine a fuzzy logic scheme into the LVQ neural network ... a neural network clustering module and a fuzzy rule-based classification module"; Ko: pg. 94, left column, second paragraph); and

classifying the defects of which characteristic amount is extracted by the at least one type of classification model ("classify the complex solder joints"; Ko: pg. 94, left column, second paragraph).

Regarding **claim 4**, Ko teaches wherein the rule-based classification selects a particular classification class set from previously provided plural classification class sets (Ko: pg. 94, right column, second paragraph) on a display screen (Ko: pg. 94, right column, last paragraph).

Regarding **claim 5**, Ko teaches wherein a correlation among the previously determined classification classes, the classes determined by using the teach data (Ko: page 94, left column, third paragraph) and the classes determined by using the screen (Ko: page 94, right column, second paragraph) is analyzed in the step of generating the classification model to generate a classification model comprising a combination of those classes (Ko: page. 94, left column, second paragraph).

Regarding **claim 7**, Ko teaches a method for classifying defects, comprising:

preparing at least one classification model which is comprised of a combination of plural

classification means which are either a rule-based classification means (Ko: page 94, left column, second paragraph) for calculating a likelihood, belonging to previously determined classification classes (Ko: page 94, right column, second paragraph), of a defect extracted from an image obtained by taking a picture of a sample according to a characteristic amount of the defect ("classify solder joints by color patterns obtained from a three-tiered color circular illumination system based upon a similarity measure between input data and the feature vectors of each class"; Ko: pg. 94, left column, third paragraph) or a learning type classification means (Ko: page 94, left column, second paragraph) for calculating a likelihood, belonging to classification classes determined by using teach data (Ko: page 94, right column, second paragraph), of the defect; and classifying the defect by using the prepared classification model ("classify the complex solder joints"; Ko: pg. 94, left column, second paragraph).

Regarding **claim 10**, Ko teaches wherein a correlation among the previously determined classification class, the class determined by using the teach data or the class determined on the screen is analyzed in the step of preparing at least one classification model (Ko: page 94, right column, second paragraph), and a classification model comprised of a combination of those classes is generated (Ko: page 94, left column, second paragraph).

Regarding **claim 12**, Ko teaches a method for classifying detects, comprising: configuring at least one classification model by combining plural classification means which are at least either a rule-based classification means (Ko: page 94, left column, second paragraph) for calculating a likelihood, belonging to previously determined classification classes (Ko: page 94, right column, second paragraph), of a defect extracted from an image obtained by taking a picture of a sample according to a characteristic amount of the defect or a learning type

classification means (Ko: page 94, left column, second paragraph) for calculating a likelihood belonging to plural classification classes (Ko: page 94, right column, second paragraph) determined on a display screen (Ko: page 94, right column, last paragraph; page 93, right column, last paragraph); and classifying the defect by using the configured classification model ("classify the complex solder joints"; Ko: pg. 94, left column, second paragraph).

Regarding **claim 14**, Ko teaches wherein a correlation among the previously determined classification classes, the classes determined by using the teach data (Ko: page 94, right column, second paragraph) or the classes determined on the screen is analyzed, and a classification model comprised of a combination of those classes is generated (Ko: page 94, left column, second paragraph).

Regarding **claim 16**, Ko teaches an apparatus for classifying defects, comprising:

plural types of classification model means which are comprised of a combination of a rule-based classification section (Ko: page 94, left column, second paragraph) for calculating a likelihood, belonging to previously determined classification classes (Ko: page 94, right column, second paragraph), of a defect from an image obtained by taking a picture of a sample according to a characteristic amount of the defect ("classify solder joints by color patterns obtained from a three-tiered color circular illumination system based upon a similarity measure between input data and the feature vectors of each class"; Ko: pg. 94, left column, third paragraph); and a learning type classification section (Ko: page 94, left column, second paragraph) for calculating a likelihood, belonging to the classification classes determined by using teach data (Ko: page 94, right column, second paragraph), of the defect according to the characteristic amount of the defect ("classify solder joints by color patterns obtained from a three-tiered color circular

illumination system based upon a similarity measure between input data and the feature vectors of each class"; Ko: pg. 94, left column, third paragraph); and

a defect classifying means for classifying the defect of which characteristic amount is extracted by a combination of the plural types of classification model means (Ko: page 94, right column, second paragraph).

Regarding **claim 17**, Ko teaches a display screen (Ko: page 94, right column, last paragraph), wherein the learning type classification section sets a classification class by using the teach data on the display screen ("supervised ANN"; Ko: page 93, right column, last paragraph).

Regarding **claim 18**, Ko teaches a display screen (Ko: page 94, right column, last paragraph), wherein the configured classification model means are shown on the display screen ("supervised ANN"; Ko page 93, right column, last paragraph).

Regarding **claim 21**, Ko teaches an apparatus for classifying defects, comprising:

an imaging means for taking a picture of a sample ("three-color tiered illumination system ... CCD camera"; Ko: pg. 94, right column, last paragraph);

a defect detecting means for detecting defects from the image obtained by taking the picture of the sample by the imaging means (Ko: pg. 94, left column, second paragraph);

a characteristic amount extracting means for extracting a characteristic amount of the defects detected by the defect detecting means ("classify solder joints by color patterns obtained from a three-tiered color circular illumination system based upon a similarity measure between input data and the feature vectors of each class"; Ko: pg. 94, left column, third paragraph);

a rule-based classification apparatus for calculating a likelihood belonging to a classification class previously set according to the characteristic amount of the defects extracted

by the characteristic amount extracting means ("fuzzy logic scheme ... reflect the human experience with its pre-knowledge in making a good criteria to classify the complex solder joints"; Ko: pg. 94, left column, second paragraph);

a learning type classification apparatus for calculating a likelihood belonging to a classification class which is set by using teach data according to the characteristic amount of the defects extracted by the characteristic amount extracting means ("adaptive learning mechanism ... select the optimal number of cluster during a learning procedure ... improve classification performance"; Ko: pg. 94, left column, first paragraph);

plural types of classification model means configured of a combination of the rule-based classification apparatus and the learning type classification apparatus ("combine a fuzzy logic scheme into the LVQ neural network ... a neural network clustering module and a fuzzy rule-based classification module"; Ko: pg. 94, left column, second paragraph); and

a defect classifying means for classifying the defects of which characteristic amount is extracted by a combination of the plural types of classification model means ("classify the complex solder joints"; Ko: pg. 94, left column, second paragraph).

Regarding **claim 22**, Ko teaches a display screen (Ko: page 94, right column, last paragraph), wherein the learning type classification apparatus sets classification classes by using teach data on the display screen ("supervised ANN"; Ko: page 93, right column, last paragraph).

Regarding **claim 23**, Ko teaches a display screen (Ko: page 94, right column, last paragraph), wherein the configured classification model means are shown on the display screen ("supervised ANN"; Ko page 93, right column, last paragraph).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (IEEE, "Solder Joints Inspection Using a Neural Network and Fuzzy Rule-Based Classification Method") in view of Henry et al (IEEE/SEMI, "Application of ADC Techniques to Characterize Yield-Limiting Defects Identified with the Overlay E-test/Inspection Data on Short Loop Process Testers).

Regarding **claim 2**, Ko discloses all elements as mentioned above in claim 1. Ko does not teach wherein the defect image obtained by taking the picture of the sample is an SEM image.

Henry teaches wherein the defect image obtained by taking the picture of the sample is an SEM image ("SEM images"; Henry: section 3, first paragraph)

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to utilize an SEM image as suggested by Henry, to allow for more detailed, enhanced images which would enhance the detection and classification of defects.

9. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (IEEE, "Solder Joints Inspection Using a Neural Network and Fuzzy Rule-Based Classification Method") in view of Kikuchi et al (US 6,801,650 B1)

Regarding **claim 3**, Ko discloses all elements as mentioned above in claim 1. Ko does not teach a picture of the sample which is positioned with reference to position coordinate data on the defects of the sample.

Kikuchi teaches a picture of the sample which is positioned with reference to position coordinate data on the defects of the sample ("defective position coordinate ... positions of defects on the semiconductor wafer"; Kikuchi: col. 17, lines 41-54).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to utilize position coordinate data on the defects of the sample as suggested by Kikuchi, to allow the "area of the semiconductor wafer under inspection [to be] in the field of view of the objective lens" (Kikuchi: col. 17, lines 41-54).

10. **Claims 6, 11, 15, 19, 20, 24, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (IEEE, "Solder Joints Inspection Using a Neural Network and Fuzzy Rule-Based Classification Method") in view of Xu et al (IEEE, Methods of Combining Multiple Classifiers and Their Applications to Handwriting Recognition)

Regarding **claim 6**, Ko discloses all elements as mentioned above in claim 1. Ko does not teach wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood.

Xu teaches wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 11**, Ko discloses all elements as mentioned above in claim 7. Ko does not teach wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood.

Xu teaches wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 15**, Ko discloses all elements as mentioned above in claim 12. Ko does not teach wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of

the each classification model and decides a class likelihood according to the determined model likelihood.

Xu teaches wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 19**, Ko discloses all elements as mentioned above in claim 16. Ko does not teach wherein the defect classifying means has a computing section for calculating a likelihood of each of the plural types of classification model means, and the defect classifying means classifies the defects by using information about the likelihood of each of the individual types of classification model means calculated by the computing section.

Xu teaches wherein the defect classifying means has a computing section for calculating a likelihood of each of the plural types of classification model means and the defect classifying means classifies the defects by using information about the likelihood of each of the individual types of classification model means calculated by the computing section (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 20**, Ko discloses all elements as mentioned above in claim 16. Ko does not teach wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood.

Xu teaches wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 24**, Ko discloses all elements as mentioned above in claim 21. Ko does not teach wherein the defect classifying means has a computing section for calculating a likelihood of each of the plural types of classification model means, and the defect classifying means classifies the defects by using information about the likelihood of each of the individual types of classification model means calculated by the computing section.

Xu teaches wherein the defect classifying means has a computing section for calculating a likelihood of each of the plural types of classification model means and the defect classifying means classifies the defects by using information about the likelihood of each of the individual types of classification model means calculated by the computing section (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

Regarding **claim 25**, Ko discloses all elements as mentioned above in claim 21. Ko does not teach wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood.

Xu teaches wherein the each classification model has classification classes, calculates a class likelihood of the each classification class, determines a model likelihood about the adequacy of the each classification model and decides a class likelihood according to the determined model likelihood (Xu: page 421, left column, lines 20-40).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to calculate the likelihood of each classification class as suggested by Xu, to improve the performance and reliability of individual classifiers.

11. **Claims 8, 9, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko et al (IEEE, "Solder Joints Inspection Using a Neural Network and Fuzzy Rule-Based Classification Method") in view of Take (US 7,035,447 B2)

Regarding **claim 8**, Ko discloses all elements as mentioned above in claim 7. Ko further teaches a display screen ("display screen"; Ko: page 94, right column, last paragraph). Ko does not teach manual selection of parameters via the display screen.

Take teaches manual selection of parameters via the display screen ("editing means for editing the defect detection parameters on the basis of the defective areas displayed by said defective area display means"; Take: col. 2, lines 9-24).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to manually select parameters via the display screen as suggested by Take, to allow the user to override classification parameters that the user predicts to be unreliable.

Regarding **claim 9**, Ko discloses all elements as mentioned above in claim 7. Ko further teaches a display screen ("display screen"; Ko: page 94, right column, last paragraph). Ko does not teach manual selection of parameters via the display screen.

Take teaches manual selection of parameters via the display screen ("editing means for editing the defect detection parameters on the basis of the defective areas displayed by said defective area display means"; Take: col. 2, lines 9-24).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to manually select parameters via the display screen as suggested by Take, to allow the user to override classification parameters that the user predicts to be unreliable.

Regarding **claim 13**, Ko discloses all elements as mentioned above in claim 12. Ko further teaches a display screen ("display screen"; Ko: page 94, right column, last paragraph). Ko does not teach manual selection of parameters via the display screen.

Take teaches manual selection of parameters via the display screen ("editing means for editing the defect detection parameters on the basis of the defective areas displayed by said defective area display means"; Take: col. 2, lines 9-24).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Ko reference to manually select parameters via the display screen as suggested by Take, to allow the user to override classification parameters that the user predicts to be unreliable.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward Park
Examiner
Art Unit 2624

/Edward Park/

/Brian P. Werner/
Supervisory Patent Examiner (SPE), Art Unit 2624